

WHAT IS CLAIMED IS

1. A wheel guard arrangement of a wheel balancing machine including a housing and a wheel balancing shaft, the wheel guard arrangement comprising

a wheel guard member,

and a mounting device for mounting the wheel guard member on the housing of the balancing machine movably between an open position in which the wheel guard member is arranged substantially vertically and a closed position in which the wheel guard member is arranged in a substantially horizontal arrangement over the shaft of the balancing machine,

wherein the wheel guard member includes a frame supported on the machine housing and movable between the open and the closed positions and a flexurally elastic plate guided by the frame, the flexurally elastic plate in the open position being of a substantially flat shape and in the closed position being deformed in an at least substantially arcuate configuration.

2. A wheel guard arrangement as set forth in claim 1 including at least three support locations for supporting the plate in its longitudinal extent on the machine housing.

3. A wheel guard arrangement as set forth in claim 1 wherein the flexurally elastic plate is mounted to the machine housing by means of the frame.

4. A wheel guard arrangement as set forth in claim 1 including means mounting the frame pivotably to the machine housing.

5. A wheel guard arrangement as set forth in claim 2 including means fixedly connecting the flexurally elastic plate to the frame at at least one support location and

means supporting the plate on the frame movably with respect to the frame at the at least two other support locations.

6. A wheel guard arrangement as set forth claim 1

wherein the flexurally elastic plate is of a flexurally elastic nature for resilient return from the arcuate shape into the flat shape.

7. A wheel guard arrangement as set forth in claim 1

wherein in the closed position the flexurally elastic plate is approximately in the shape of a circular arc.

8. A wheel guard arrangement as set forth in claim 2

wherein the plate has first and second ends and a central region and the support locations on the plate are arranged at least in the region of the ends of the plate and substantially in the central region of the plate.

9. A wheel guard arrangement as set forth in claim 2

wherein a said support location is provided at the end of the plate in the region of the mounting device.

10. A wheel guard arrangement as set forth in claim 9 including

means guiding the plate movably with respect to the frame at the support location in the region of the mounting device.

11. A wheel guard arrangement as set forth in claim 8 including

means guiding the plate in the central region of the longitudinal extent thereof movably at the support location disposed there.

12. A wheel guard arrangement as set forth in claim 11

wherein the support location arranged substantially in the central region of the plate has at least one support element at which the plate is movably guided.

13. A wheel guard arrangement as set forth in claim 2
wherein the support location substantially in the central region of the plate is arranged above the shaft of the balancing machine in said closed position.

14. A wheel guard arrangement as set forth in claim 2
wherein the support locations at the ends of the flexurally elastic plate in said closed position are arranged substantially at the height of the shaft of the balancing machine.

15. A wheel guard arrangement as set forth in claim 2
wherein the support locations at the ends of the flexurally elastic plate in said closed position are arranged slightly above the height of the shaft of the balancing machine.

16. A wheel guard arrangement as set forth in claim 2 including
a support device mounted in use pivotably to the machine housing
wherein the support location substantially in the central region of the plate is arranged at said support device.

17. A wheel guard arrangement as set forth in claim 2 including
a support device mounted in use stationarily to the machine housing
wherein the support location substantially in the central region of the plate is arranged at said support device.

18. A wheel guard arrangement as set forth in claim 16
wherein the support device is a pivotable lever which is arranged in the closed position substantially parallel to the frame.

19. A wheel guard arrangement as set forth in claim 18
wherein said lever, upon pivotal movement out of said open position into said closed position, has a smaller angle of pivotal movement than the frame.

20. A wheel guard arrangement as set forth in claim 1
wherein the flexurally elastic plate has an end in opposite relationship to the mounting device fixedly connected to the frame.

21. A wheel guard arrangement as set forth in claim 1
wherein the flexurally elastic plate is of a multi-layer nature.

22. A wheel guard arrangement as set forth in claim 1
wherein the frame includes frame members extending transversely with respect to the longitudinal direction of the plate in the region of the ends of the flexurally elastic plate.

23. A wheel guard arrangement as set forth in claim 16
wherein at the end of the plate towards the mounting device, the support device bears against the outside of the plate and in the central region of the plate the support device thereat bears against the inside of the plate.

24. A wheel guard arrangement as set forth in claim 17
wherein at the end of the plate towards the mounting device, the support device bears against the outside of the plate and in the central region of the plate the support device thereat bears against the inside of the plate.

25. In a wheel balancing machine including a housing, a wheel mounting shaft and means rotatably supporting the shaft in the housing, a wheel guard arrangement comprising

a wheel guard member,

a mounting device for mounting the wheel guard member on the housing of the balancing machine movably between an open position in which the wheel guard member is arranged substantially vertically and a closed position in which the wheel guard member is arranged in a

substantially horizontal arrangement over the shaft of the balancing machine,

wherein the wheel guard member includes a frame supported on the machine housing and movable between the open and the closed positions and a flexurally elastic plate guided by the frame, the flexurally elastic plate in the open position being of a substantially flat shape and in the closed position being deformed in an at least substantially arcuate configuration, and

at least three support locations for supporting the plate in its longitudinal extent on the machine housing.